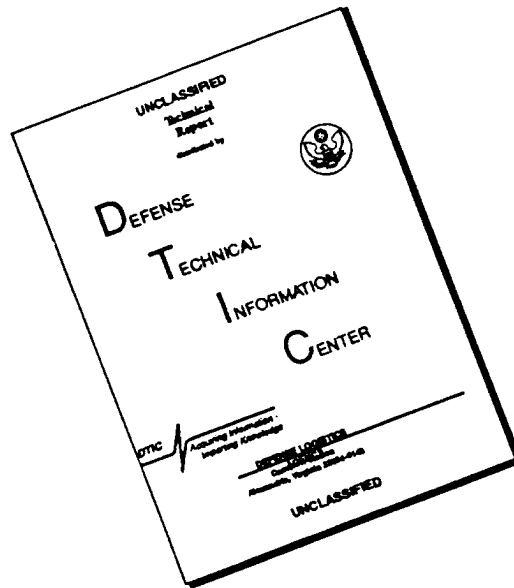


REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 6 March 1995		3. REPORT TYPE AND DATES COVERED
4. TITLE AND SUBTITLE Tobacco Use and Injury Risk Among Military Parachutists			5. FUNDING NUMBERS	
6. AUTHOR(S) Amoroso, P.J., Dettori, J.R., Reynolds, K.L., Schneider, G.A., Lavin, P.T., Ryan, J.B. and Jones, B.H.				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Research Institute of Environmental Medicine Natick, MA 01760-5007			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSORING/MONITORING	
			19960419 089	
11. SUPPLEMENTARY NOTES Abstract presented at Third International Conference on Injury Prevention and Control, 18-22 Feb 1996, Melbourne, Australia				
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) PURPOSE: Studies of U.S. Army soldiers have found higher rates of injury among smokers. We tested this relationship for individuals performing military parachuting, an activity associated with high-energy collisions and relatively high injury rates. METHODS: Three groups of U.S. Army soldiers (N=1706) participated in one of three prospective studies. The first two groups were students participating in basic airborne training in either 1991 (n=449) or 1992 (n=848). Each student made five parachute jumps over five days. The third group was experienced soldiers from a combat ready airborne unit (n=409) each completing a single jump in 1993. All individuals were given questionnaires prior to their jumps. The outcome measure was medically attended injuries. Logistic regression was used to analyze injury type, use of cigarettes, use of smokeless tobacco, age, gender, and physical fitness test scores (maximum number of situps in two minutes, maximum number of pushups in two minutes, and a two-mile timed run). RESULTS: The risk of an injury was lower among students than combat jumpers (6.8/1000 jumps vs. 130/1000 jumps). Injury risk was significantly higher among older and less (truncated after 200 words)				
14. SUBJECT TERMS tobacco, parachute, airborne, smokeless tobacco, gender, physical fitness, chewing tobacco, injury, nicotine, carbon monoxide			15. NUMBER OF PAGES 1	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL	

DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

GENERAL INSTRUCTIONS FOR COMPLETING SF 298

The Report Documentation Page (RDP) is used in announcing and cataloging reports. It is important that this information be consistent with the rest of the report, particularly the cover and title page. Instructions for filling in each block of the form follow. It is important to *stay within the lines* to meet *optical scanning requirements*.

Block 1. Agency Use Only (Leave blank).

Block 2. Report Date. Full publication date including day, month, and year, if available (e.g. 1 Jan 88). Must cite at least the year.

Block 3. Type of Report and Dates Covered. State whether report is interim, final, etc. If applicable, enter inclusive report dates (e.g. 10 Jun 87 - 30 Jun 88).

Block 4. Title and Subtitle. A title is taken from the part of the report that provides the most meaningful and complete information. When a report is prepared in more than one volume, repeat the primary title, add volume number, and include subtitle for the specific volume. On classified documents enter the title classification in parentheses.

Block 5. Funding Numbers. To include contract and grant numbers; may include program element number(s), project number(s), task number(s), and work unit number(s). Use the following labels:

C - Contract	PR - Project
G - Grant	TA - Task
PE - Program Element	WU - Work Unit Accession No.

Block 6. Author(s). Name(s) of person(s) responsible for writing the report, performing the research, or credited with the content of the report. If editor or compiler, this should follow the name(s).

Block 7. Performing Organization Name(s) and Address(es). Self-explanatory.

Block 8. Performing Organization Report Number. Enter the unique alphanumeric report number(s) assigned by the organization performing the report.

Block 9. Sponsoring/Monitoring Agency Name(s) and Address(es). Self-explanatory.

Block 10. Sponsoring/Monitoring Agency Report Number. (If known)

Block 11. Supplementary Notes. Enter information not included elsewhere such as: Prepared in cooperation with...; Trans. of...; To be published in.... When a report is revised, include a statement whether the new report supersedes or supplements the older report.

Block 12a. Distribution/Availability Statement. Denotes public availability or limitations. Cite any availability to the public. Enter additional limitations or special markings in all capitals (e.g. NOFORN, REL, ITAR).

DOD - See DoDD 5230.24, "Distribution Statements on Technical Documents."

DOE - See authorities.

NASA - See Handbook NHB 2200.2.

NTIS - Leave blank.

Block 12b. Distribution Code.

DOD - Leave blank.

DOE - Enter DOE distribution categories from the Standard Distribution for Unclassified Scientific and Technical Reports.

NASA - Leave blank.

NTIS - Leave blank.

Block 13. Abstract. Include a brief (*Maximum 200 words*) factual summary of the most significant information contained in the report.

Block 14. Subject Terms. Keywords or phrases identifying major subjects in the report.

Block 15. Number of Pages. Enter the total number of pages.

Block 16. Price Code. Enter appropriate price code (*NTIS only*).

Blocks 17. - 19. Security Classifications. Self-explanatory. Enter U.S. Security Classification in accordance with U.S. Security Regulations (i.e., UNCLASSIFIED). If form contains classified information, stamp classification on the top and bottom of the page.

Block 20. Limitation of Abstract. This block must be completed to assign a limitation to the abstract. Enter either UL (unlimited) or SAR (same as report). An entry in this block is necessary if the abstract is to be limited. If blank, the abstract is assumed to be unlimited.

PUBLICATION AND TECHNICAL PRESENTATION CLEARANCE

1. Report/Presentation Title: Tobacco Use and Injury Risk Among Military Parachutists
2. Authors: Amoroso, PJ, Dettori, JR, Reynolds, KL, Schneider, GA, Lavin, PT, Ryan, JB and Jones, BH
3. Type of Document: ☒ Abstract ☐ Poster ☐ Presentation ☐ Book Chapter
☐ Journal Article ☐ Technical Report ☐ Review Article
4. Proposed journal or publication: _____
5. Meeting name, dates & location: Third International Conference on Injury Prevention and Control, 18-22 Feb 96, Melbourne, Australia
6. The attached material ~~contains~~/does not contain classified material. It ~~does~~/does not contain any potentially sensitive or controversial material.
Paul J Amoroso First Author J. Dettori Second Author
KL Reynolds etc Signatures of Other USARIEM Authors
7. Editorial Comments ~~have~~/have not been requested:

Technical Editor Date
8. Recommend Clearance:
J. Dettori Research Division Chief
Jan A Vogel Research Director QMB
9. ☒ Clearance is granted. ☐ Clearance is not granted.
☐ This must be forwarded to USAMRDC for clearance.
- Joel T. Hiatt
JOEL T. HIATT
Colonel, MS MS
Commanding
10. STO/Task number WB Budget Project No. 3M262787-A879 Cost Code 5430285W8900
11. USARIEM Clearance Number P95-56(Abs) by RPOD 6 Mar 95 (Date)

516 - Monday Poster

Presenter: Amoroso, Paul

TOBACCO USE AND INJURY RISK AMONG MILITARY PARACHUTISTS

Amoroso PJ; Dettori JR; Reynolds KL; Schneider GA; Lavin PT; Ryan JB; Jones BH

Occupational Medicine Division, United States Army Research Institute of Environmental Medicine, Natick, Massachusetts, United States

PURPOSE: Studies of U.S. Army soldiers have found higher rates of injury among smokers. We tested this relationship for individuals performing military parachuting, an activity associated with high-energy collisions and relatively high injury rates.

METHODS: Three groups of U.S. Army soldiers (N=1706) participated in one of three prospective studies. The first two groups were students participating in basic airborne training in either 1991 (n=449) or 1992 (n=848). Each student made five parachute jumps over five days. The third group was experienced soldiers from a combat ready airborne unit (n=409) each completing a single jump in 1993. All individuals were given questionnaires prior to their jumps. The outcome measure was medically attended injuries. Logistic regression was used to analyze injury type, use of cigarettes, use of smokeless tobacco, age, gender, and physical fitness test scores (maximum number of situps in two minutes, maximum number of pushups in two minutes, and a two-mile timed run).

RESULTS: The risk of an injury was lower among students than combat jumpers (6.8/1000 jumps vs. 130/1000 jumps). Injury risk was significantly higher among older and less physically fit individuals (injury risk increased 4% for each additional year of age and decreased 2% for each additional situp). There was no significant smoking effect [OR 0.49 (95% CI 0.11-2.13)]. Smokeless tobacco users had a higher risk of injury overall, [OR 1.52 (95% CI 0.94-2.47)]; this association was inconsistent across the study populations.

CONCLUSION: The associations of physical fitness and age with injury risk is consistent with previous findings. The effect of smokeless tobacco on these populations is unclear and will require further study. In this population where injuries are caused by single-event, high-energy trauma, no significant smoking effect was demonstrated. This finding suggests the effect of smoking on injury may be more important for low impact, repetitive events.